

CHAPTER 10

HOUSEHOLD HAZARDOUS WASTE AND DISASTER PLANNING

1: INTRODUCTION

Purpose: The purpose of this chapter is to provide assistance to local jurisdictions in developing a disaster plan for the collection of household hazardous wastes (HHW).

Need to modify: While many local jurisdictions already have comprehensive collection programs for HHW, these programs may need to be modified to allow the program to operate adequately during a disaster. A good disaster plan can help meet these needs.

Establish a program: For those jurisdictions that do not have a comprehensive collection program, Section 5 below provides information on how to establish a HHW collection program prior to a disaster.

If disaster strikes: If a disaster occurs prior to establishing a comprehensive household hazardous waste collection program and/or a disaster plan, local jurisdictions should follow Section 4 below on "Contents For a HHW Collection Program Disaster Plan."

Focus is HHW: While some of the information contained in this chapter may apply to hazardous materials emergency response, the focus of this chapter is on household hazardous waste collection programs.

Jurisdictions should contact local emergency agencies, the Governor's Office of Emergency Services (OES), and the Department of Toxic Substances Control (DTSC) for more specific information on hazardous materials emergency response.

Chapter contents: This chapter contains five sections.

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2: BACKGROUND ON HOUSEHOLD HAZARDOUS WASTE

What is HHW? Common household products that contain hazardous materials become HHW when discarded. Typical HHW include paint, used oil, batteries, and pesticides.

In California, HHW is not exempt from most hazardous waste laws, and it is illegal to dispose of HHW in solid waste landfills, down storm drains, and into municipal sewer systems.

While HHW must be managed as a hazardous waste, some wastes such as latex paint, batteries, and used oil are recyclable, and local jurisdictions are encouraged to recycle whenever possible.

3: PURPOSE OF DISASTER PLANNING FOR HOUSEHOLD HAZARDOUS WASTE

Minimize impacts: The purpose of disaster planning for HHW is to minimize potential public health and safety impacts, as well as to minimize costs and confusion.

Not prepared: In past disasters, local jurisdictions across the country were not adequately prepared for managing the HHW generated by disasters. While many local jurisdictions in California have already established HHW collection programs, these programs may need to be modified and expanded to accommodate the effects of a disaster.

Need for options: For example, existing transportation routes may not be accessible to a permanent collection facility, so other options such as roving services may need to be provided. In addition, wastes that have been collected from past floods have been uncontainerized, mixed, unknowns, and wetted creating a more complex and dangerous situation.

Coordinate plan: For cities that participate in a county collection program, a disaster plan should be developed in conjunction with the county. In addition, a disaster plan should be developed in consultation with the following:

- ◆ local/regional emergency management agencies,
- ◆ fire departments,
- ◆ police, and
- ◆ other local entities that may be involved in disaster and/or HHW collection programs.

4: CONTENTS FOR A HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAM DISASTER PLAN

Plan contents: The following information should be included in a local disaster plan for HHW collection. This information may need to be modified or expanded to meet the individual needs for each local jurisdiction, as well as the disaster incident.

Description of existing HHW collection program: The disaster plan should include information about the jurisdiction's existing HHW collection program, including the contact person(s) and existing HHW collection permits. The plan should provide detailed information about the following:

- ◆ type of collection program,
- ◆ responsible agency,
- ◆ location of facilities,
- ◆ hours of operation,
- ◆ contact person,
- ◆ telephone number,
- ◆ storage capacity,
- ◆ types of wastes accepted, and
- ◆ any other relevant information.

Designate HHW coordinator: The designation of a HHW coordinator should be made and incorporated into the local incident command system (ICS).

Coordinators should receive training on local and state emergency response planning, disaster funding procedures, documentation, and any other areas related to the coordinator's duty checklist.

The coordinator should also be familiar with the Standardized Emergency Management

System (SEMS), and insure that local/regional emergency response personnel are familiar with and have adopted the plan.

More than one staff person should be trained as a HHW coordinator, as staff may not be available at the time of a disaster. In addition, the responsibilities for the disaster may be more than one coordinator can handle.

Develop lists: The following lists should be developed for use during a disaster for HHW collection:

- ◆ A Local Emergency Personnel Contact List of those staff that would be involved in HHW collection programs in the event of a disaster.
- ◆ Include names, telephone numbers, fax numbers, pager numbers, and roles and responsibilities.
- ◆ Information on the local incident commander should be included.
- ◆ Identification of "who approves what" for expenditures and activities need to be included.
- ◆ Also, identify those responsible for any necessary local permits.
- ◆ Duty Checklists should be developed for those local staff that will have a primary role in HHW collection programs. Include chain-of-command reporting procedures.
- ◆ A State Emergency Contact List should be developed which includes:
 - ◆ the local OES area coordinator,
 - ◆ the Department of Toxic Substances Control,
 - ◆ and the CIWMB disaster coordinator.

Some of these emergency numbers may not be available until the time of the disaster.

While federal agencies may be involved during a disaster, the initial contact for

assistance needs to follow SEMS. After contacting your local OES emergency coordinator, a contact number may at that time be provided for federal agencies such as FEMA or EPA.

Checklists: According to staff of the County of Sonoma, California, checklists were a very useful tool during the County's past flooding disasters. Checklists are recommended because they provided:

- ◆ a quick assignment of duties,
- ◆ quick reference, and
- ◆ back-up documentation if necessary.

For more information, see Attachment A, a checklist developed by Sonoma County.

Mutual aid agreements It may be useful to develop mutual aid agreements with other jurisdictions for collection of HHW during a disaster as well as providing public information. Please refer to Chapter 7 of this Plan for more information on mutual aid.

Identification of collection sites and equipment During past disasters, sites were in high demand for emergency temporary collection sites for HHW, as well as for other emergency needs. Due to the high demand for emergency sites, it is recommended that the local HHW coordinator work closely with local emergency response personnel in developing a plan for temporary sites to meet all needs.

Identification of both publically and privately-owned equipment that can be used for disasters and HHW is also important. Examples of needed equipment include trucks and forklifts.

More information: Refer to Chapter 4 on Temporary Storage Sites for more information.

Contractors/haulers: While many jurisdictions already have HHW contractor/hauler agreements in place, these agreements should address the additional needs for services due to a disaster.

Back-up contractor/hauler agreements may also need to be in place, since contractors may be overwhelmed with work during a disaster. In addition, State and federal agencies may have contractors available through their programs.

More information: Refer to Chapter 5 on Contracts for more information.

Timing of HHW While it is important to have special collection opportunities **collection events:** for disaster-related HHW as soon as possible to avoid illegal disposal, having an event or service too soon after a disaster may result in low participation.

The appropriate time for a special collection event/service will differ, but sufficient public notification, assessment and monitoring of the disaster and cleanup efforts are important factors.

Public Information/ notification: Local jurisdictions should be prepared to provide the public with information related to the problems associated with HHW along with information about special collection events and services.

It may be helpful to establish a telephone hotline, or modify an existing hotline, for the public to call for information. If a hotline is not established, or telephone service is disrupted due to a disaster, alternative methods for notification will need to be established to distribute information to the public.

Examples of alternatives would be door-to-door notification in affected areas, roadside signs, and flyers posted in public areas.

In keeping with Office of Emergency Services standard operating procedures, follow the OES chain of command for information distribution.

Load checking programs: After past disasters, some residents left piles of solid and hazardous waste at their curb for pickup. As such, significant amounts of HHW were collected through load checking programs at landfills and at transfer stations.

It is recommended that load checking programs be established, and that loads be checked and hazardous wastes be pulled out. A contractor could sort, identify, package, and ship the wastes.

State HHW collection permits: The State Department of Toxic Substances Control (DTSC) is responsible for issuing necessary state permits for HHW collection facilities. During a disaster, emergency permits can be issued for special collections that would not normally be allowed, e.g. curbside collection of nonrecyclables. For more information on permits, contact the Department of Toxics Substances Control at (510) 540-3894.

State and federal assistance and funds

State OES: The OES is responsible for requesting assistance on behalf of local jurisdictions for resources beyond the capability of the jurisdiction.

State assistance may include assistance available from State, federal, or private sources. If a local jurisdiction is declared a state disaster area, and the local jurisdiction deems that the needs of the disaster response are beyond its capabilities, then the local jurisdiction can request assistance and reimbursement of costs from OES.

Follow SEMS: All requests and emergency responses must be in accordance with the Standardized Emergency Management System. For

information on SEMS, please refer to Chapter 13. The State Department of Toxic Substances Control may have funding available for hazardous waste response and collection.

Federal assistance: If a state disaster area is declared a federal disaster, then federal funding assistance may be available through the State OES. Funding and assistance may be available from Federal agencies such as FEMA and the U.S. EPA.

Damage estimates: The local jurisdiction should provide to the State OES estimates of damages and a "scope of work requested." It is recommended that the local incident commander and/or the HHW coordinator meet ahead of time with local emergency agencies or State OES contacts regarding the proper procedures and wording of requests for assistance.

Funding Process: The funding process may vary depending on the unique circumstances of the disaster. The process can either be the traditional FEMA reimbursement process, or by direct assistance from EPA. For the floods of 1996 and 1997, FEMA, through EPA, provided a HHW contractor for emergency collection programs.

For more info: Please refer to Chapter 6 for more funding information, and contact your State OES area coordinator for more specific information. Refer to EPA's fact sheet, Attachment C.

Documentation of costs and quantities: It is highly recommended that all costs of collection programs for a disaster be documented. It is important to account for all the costs and services of HHW collection programs provided due to a disaster, as opposed to the existing program.

It is also important to document the quantities and types of waste collected to demonstrate that the wastes were generated above and beyond existing

collection programs.

In addition, it is recommended that local staff contact the State OES area coordinator for assistance (ideally prior to a disaster) for guidance on documentation and audits.

5: ESTABLISHING A HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAM

New program: If a local jurisdiction does not have an existing or comprehensive HHW collection program, and does not participate in a county program, then it is highly advised that a program be established as soon as possible. The following information can be used to help establish a HHW collection program.

Initial steps: Following are six steps to follow in establishing a HHW Collection Program.

Initial Steps in Establishing a HHW Collection Program	
STEP	ACTION
Step 1	Define Roles and Responsibilities. Although one person can be the main organizer, the success of the program depends on the involvement of a variety of individuals and organizations. Those individuals that will have an on-going role in the program should be aware of their responsibilities.
Step 2	Establish a Planning Committee. A core group of people with the expertise needed to plan the HHW collection program should be established. Committee members should represent the local solid or hazardous waste planning program, local health program, city or

Initial Steps in Establishing a HHW Collection Program	
STEP	ACTION
	county planning commissions, citizen groups, and emergency management. Planning for the first collection program should begin early, at least 6-18 months in advance of collection program date.
Step 3	Establish Goals Identify the goals of the HHW collection program. While the overall goal is to keep HHW out of landfills, sewers, etc., more specific goals should be adopted to meet the needs of the community. These specific goals may be to provide the most convenient service, to include multi-family housing, or to maximize reuse and recycling. Establishing specific goals will help the planning committee and local officials determine the type of program to establish. It is also recommended that evaluation methods and the criteria to be used to measure the effectiveness of the program be developed.
Step 4	Determine Funding Availability. Potential funding sources can be general funds, tipping fees, parcel fees, and grants
Step 5	Decide Who the Program Participants Will Be. Will the program be available to residents only? Will CESQGs be allowed to bring in their wastes? (CESQGs are conditionally exempt small quantity generators as defined in Section 261.5 of Title 40 of the Code of Federal Regulations).
Step 6	Gather Information. It is essential that the sponsor and the planning committee learn about federal, state, and local laws and regulations that apply to their program. It is also important to anticipate the types and quantities of wastes that may be collected through the programs. In addition, gather information about other jurisdictions' HHW collection programs.

Public involvement: The public should be made aware of the development of the HHW collection program as early as possible, and the public should participate in the development of the program. Bringing in the public as early as possible in the program development stage will help provide public acceptance and assistance. Residents involved in the early stages of program development will help assure a sense of "ownership" and help ensure a greater participation in the program.

Waste acceptance criteria: The types and sources of wastes need to be determined early in the process. Wastes such as explosives are usually excluded from HHW collection programs due to extreme dangers.

In addition, local HHW programs can accept wastes from conditionally exempt small quantity generators (CESQG) if they choose so. CESQGs are businesses that generate less than 100 kilograms of waste a month and meet other criteria.

Select Type of HHW Collection Program

Program types: Various types of collection programs are available, and the jurisdiction should evaluate their program goals to determine which type(s) of programs should be established. Costs, size of program, and targeted wastes should also be considered.

The following is a summary of some of the types of collection programs available.

- ◆ Temporary (Periodic) HHW Collection Facilities
- ◆ Mobile HHW Collection Facility Programs.
- ◆ Curbside HHW Collection Programs
- ◆ Door-to-Door HHW Collection Programs
- ◆ Recycle-Only HHW Collection Facility.
- ◆ Permanent HHW Collection Facility.

Temporary (Periodic) HHW Collection Facilities These facilities are generally available as "One or Two Day" collection events or "Roundups", and are held at various sites including parking lots, city maintenance yards, and at landfills.

Criteria in selecting a site should include safety, convenience, size of area, liability, and local support.

The following requirements apply to temporary HHW collection facilities:

- ◆ Facilities can only be operated for a period of two consecutive days in any month at the same location.
- ◆ Upon termination of operations, all equipment, materials, and wastes must be removed from the site within 144 hours (Health & Safety Code Section 25218.1).
- ◆ Facilities must be operated in accordance with California Code of Regulations, Title 22, Section 66270.60(d)(5).
- ◆ Facilities must terminate operations within two days of commencing each session (Health & Safety Code 25218.1(l)).
- ◆ Facilities operate under a permit by rule issued by the Department of Toxic Substances Control. Refer to California Code of Regulations, Title 22, Section 67450.4. Contact the Department of Toxic Substances Control for permitting procedures at (916) 255-3549.

Appointments: To alleviate congestion and waiting times for participants, an appointment-based collection event can be organized. At these events, participants have appointments at specific times and dates to bring in their HHW.

Mobile HHW Collection Facility Programs	These programs include mobile collection facilities that utilize portable structures for collection events. Mobile collection facilities are set up at different locations throughout the year, and provide a more convenient service to residents. The following conditions must be met for mobile facilities:
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- ◆ A mobile collection facility must be operated not more than four times in any one calendar year at the same location,
- " The facility is operated not more than three consecutive weeks within a two-month period at the same location.
- ◆ Upon termination of operations, all equipment, materials, and waste are removed from the site within 144 hours.
- ◆ Contact the Department of Toxic Substances Control for permitting requirements at

(916) 255-3549.

Curbside HHW Collection Programs These programs provides curbside service for collection of specific recyclable household hazardous waste, which includes latex paint, used oil, and small batteries. Most programs collect used oil. These programs must be operated in accordance with Health and Safety Code Sections 25163 and 25218.1. Contact the Department of Toxic Substances Control for permitting requirements at (916) 255-3549.

Door-to-Door HHW Collection Programs These programs collect HHWs from individual residences. These programs are generally run on an appointment basis, and can provide services to those individuals that are housebound and others who cannot travel to a collection site. Contact the Department of Toxic Substances Control at (916) 255-3549 for permitting requirements.

Recycle-Only HHW Collection Facility These facilities accept only recyclable materials, and operate in accordance with Health and Safety Code Section 25218.8.

These programs are sometimes referred to as "BOPS" for batteries, oil, and paint collections. Antifreeze and used oil filters are also accepted at some recycle-only facilities.

If the facility is operated in accordance with Health and Safety Code Section 25218.8, then a hazardous waste facilities permit is not required. Contact the Department of Toxic Substances Control for more specific information at (916) 255-3549.

Permanent HHW Collection Facility These facilities are permanent or semipermanent structures at a fixed location which meets both of the following conditions:

- ◆ The facility is operated at the same location on a continuous, regular schedule.
- ◆ The hazardous waste stored at the facility is removed within one year after collection.

Contact the Department of Toxic Substances Control at (916) 255-3549 for more specific information about permits and other requirements.

In addition, the CIWMB has a guidance document available for establishing permanent facilities. Contact the CIWMB at (916) 255-2891 to obtain a copy of the guidance document.

Select a contractor/hauler: Most communities contract with a qualified hazardous waste firm that handles the HHW collected, and recycles or disposes of the waste.

Potential contractors should be interviewed, and references should be checked. Other jurisdictions should be contacted in regard to the performance of their contractors.

In addition, a contractor should be selected based on the needs and program types selected by the jurisdiction. Contractor roles can range from total operation of HHW collection programs to only hauling the wastes to a hazardous waste facility.

Develop a site operation plan: A site needs to be selected and a site design needs to be developed. The site design should show the placement of equipment and demonstrate how the program site will operate. Please refer to the Department of Toxic Substances Control's Inspection Checklist for detailed information.

Develop a health & safety plan: Well-trained personnel as well as a site safety plan are crucial to the success of a HHW collection program. Personnel training will depend on the type of HHW collection program and the job category of each employee.

A health and safety officer should be part of the HHW collection program staff and be on site during collection. Health and safety officers should be responsible for proper personal protection equipment (PPE) and proper safety training.

Refer to Cal/OSHA for specific training requirements. A site safety plan should be included which provides safety procedures to be followed at a particular site.

Develop an emergency response plan:

An emergency response plan should be developed for every HHW collection program. This plan should accomplish the following:

- ◆ identify the responsible roles of site personnel (including designation of an emergency coordinator);
- ◆ describe response procedures for different types of emergencies; and
- ◆ identify emergency services to be called if necessary.
- ◆ Emergency telephone numbers should also be listed at the site, including fire and police (911), ambulances, and hospitals.
- ◆ Spill reporting numbers should be listed, including local emergency response and response contractors.
- ◆ In some cases, a spill should be reported to the State Office of Emergency Services at (800) 852-7550.
- ◆ Also, it may be helpful to list CHEMTREC's emergency number, (800) 424-9300 (CHEMTREC is chemical industry organization).
- ◆ CHEMTREC's non-emergency number is (800) 262-8200, and they can provide information on special handling precautions for chemicals. Please refer to Attachment B for a brochure from CHEMTREC for more information.

Establish segregation and sorting protocols:

Procedures for segregating collected wastes that are incompatible should be developed. In addition, segregation and sorting protocols should be established for recyclable HHWs such as

batteries, oil, and latex paint.

Establish reuse/ recycling programs: California's waste management hierarchy places recycling/reuse above landfilling. As such, all efforts should be made by local jurisdictions to establish programs that not only collect recyclables but establish a use for those recyclables.

ATTACHMENTS

A.Sonoma County Checklist

B.CHEMTREC brochure

C.EPA's Role in the Federal Response Plan, Fact Sheet, 550-F-006, May 1995

REFERENCES

- ◆ California Integrated Waste Management Board, "Statutes Effective January, 1995."
- ◆ Daniel, Lesli, Presentation at the Household Hazardous Waste Management Conference. February, 1996.
- ◆ Lund, Herbert F., "Household Hazardous Wastes," The McGraw-Hill Recycling Handbook. 1993.
- ◆ United States Environmental Protection Agency, "Household Hazardous Waste Management: A Manual for One-Day Community Collection Programs." EPA530-R-92-026. Washington, D.C. August, 1993.
- ◆ Waste Watch Center, "Disaster!!", Household Hazardous Waste Management News. March, 1994.
- ◆ Meeting Minutes from the Northern California Household Hazardous Waste Information Exchange. September, 1995.

CHECKLIST

CHAPTER 10

HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAM

CONTENTS FOR HOUSEHOLD HAZARDOUS WASTE (HHW) COLLECTION PROGRAM DISASTER PLAN

1. Describe Existing HHW Collection Program

- ◆ Describe the existing HHW programs, including all collection and public education programs, and existing permits.

2. Designate A Local HHW Disaster Coordinator

- ◆ A Coordinator should be designated prior to a disaster, and provided training on local and state emergency response planning and funding.

3. Develop Lists

- ◆ Lists should be developed including local emergency personnel, duty checklists for local government staff, and a state emergency contact list.

4. Enter into Mutual Aid Agreements

- ◆ Mutual aid agreements should be signed prior to a disaster to identify potential assistance from neighboring jurisdictions, including collection of HHW and public information.

5. Identify Potential Collection Sites and Equipment

- ◆ Local HHW Coordinator should work closely with emergency response personnel to identify sites for collection, as well as available publically and privately-owned equipment.

6. Prepare Contractor/Hauler Agreements

- ◆ While many local governments have existing agreements, these agreements may need to be modified to address the additional needs for service during a disaster.

7. Timing of Household Hazardous Waste Collection Events

- ◆ Assess the needs for special collection events due to a disaster, and how soon after the disaster the public will be ready for the event. Make sure sufficient public notices have been made.

8. Public Information/Notification

- ◆ Local governments should be prepared to provide the public with information related to emergency household hazardous waste and collection programs.

9. Establish or Expand Load Checking Programs

- ◆ Load checking programs may need to be established or expanded due to a disaster.

10. Apply for State Household Hazardous Waste Permits

- ◆ The State Department of Toxic Substances Control is responsible for issuing all household hazardous waste collection permits for the state.

11. Apply for State and Federal Assistance/Funds

- ◆ The Governor's Office of Emergency Services is responsible for requesting assistance for local governments for all disaster assistance and funding.

12. Document Costs, Quantities, and Types of Household Hazardous Waste Collected

- ◆ All costs incurred by local government due to disasters should be adequately documented, as well as the quantities and types of household hazardous waste collected.

**ESTABLISHING A HOUSEHOLD HAZARDOUS WASTE
COLLECTION PROGRAM**

◆ Initial Steps

1. Define Roles and Responsibilities.
2. Establish a Planning Committee .
3. Establish Goals.
4. Determine Funding Availability.
5. Decide Who the Program Participants Will Be.
6. Gather information about HHW laws and regulations, types and quantities of HHW that may be collected.

7. Gather information about other jurisdictions' HHW programs.

◆ **Public Involvement**

- ◆ Notify the public of the development of the program as early as possible, and provide a means for public input.

◆ **Establish Waste Acceptance Criteria**

- ◆ Determine what types of wastes will be accepted/excluded and whether wastes from conditionally exempt small quantity generators will be accepted.

◆ **Select Type of Collection Program**

- ◆ Temporary (Periodic) HHW Collection Facilities
- ◆ Mobile HHW Collection Facility
- ◆ Curbside HHW Collection Programs
- ◆ Door-to-Door HHW Collection Program
- ◆ Recycle-Only HHW Collection Facility
- ◆ Permanent HHW Collection Facility
- ◆ Combination of above

◆ **Select HHW Contractor/Hauler**

- ◆ Interview potential HHW contractors. Contact other jurisdictions to get information about their contractors/haulers.

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Develop A Site Operation Plan

- ◆ This should include site selections, design, and operation of collection sites.

◆ Develop A Health and Safety Plan

- ◆ This plan should establish procedures to avoid incidents such as spills and worker injuries.

◆ Develop An Emergency Response Plan

- ◆ This plan should address onsite spills and other emergencies occurring at collection sites.

◆ Establish Segregation and Sorting Protocols

- ◆ Establish segregation protocols for HHW and segregation and sorting protocols for recyclable HHW such as batteries, oil, and latex paint.

◆ Establish Reuse/Recycling Program

- ◆ Programs should be established to address the collection of recyclables and methods to reuse or recycle collected materials.